



**GBIF**

Global Biodiversity  
Information Facility

## Looking forward: working together to achieve GBIF's strategic priorities

Joint session for GBIF Participants and nodes

GB29 Brussels | 5 Oct 2022



# PRIORITY 1: SCIENCE AND RESEARCH

*Improving biodiversity evidence for scientific research and understanding*







## **PRIORITY 1: SCIENCE AND RESEARCH**

- Activity 1.1: Drive mobilization and use of biodiversity data to support priority thematic areas of relevance
- Activity 1.2: Advance GBIF's contribution to latest biodiversity modelling approaches
- Activity 1.3: Support open science principles



# NATIONAL / REGIONAL EFFORTS FOR DATA MOBILIZATION





## PRIORITY 1: SCIENCE AND RESEARCH NATIONAL TAXONOMIC REFERENCE CHECKLISTS

- +50 National reference checklist
  - 🐾 Mammals
  - 🐟 Freshwater fishes
  - 🦜 Birds
  - 🌿 Plants and lichens
  - 🐢 Threatened species, according to resolution 1912 of 2017 of MADS.
  - 🐌 Invasive species, according to GRIIS.
  - 💧 Hydrobiologicals: macroinvertebrates and macrophytes



# Listas taxonómicas de referencia

# PRIORITY 1: SCIENCE AND RESEARCH

## PARQUES CÓMO VAMOS - PARKS HOW ARE WE DOING

- Support for the application of data on the state of knowledge of the biodiversity of protected areas.
- To generate recommendations to guarantee the persistence of Colombia's National Parks.
- First results of this support by the end of 2022
- Annual report.



# CIÉNAGA GRANDE DE SANTA MARTA



Santuario de Flora y Fauna

## INDICADORES INTERNOS

### BIODIVERSIDAD



### CAPACIDAD ADMINISTRATIVA

### BIENESTAR / DERECHOS



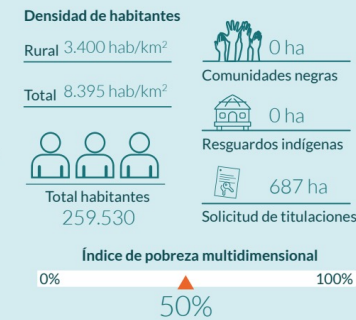
### GOBERNABILIDAD

## INDICADORES CONTEXTO MUNICIPAL

### BIOFÍSICOS



### GENTE



### INSTITUCIONES



### ACTIVIDADES PRODUCTIVAS





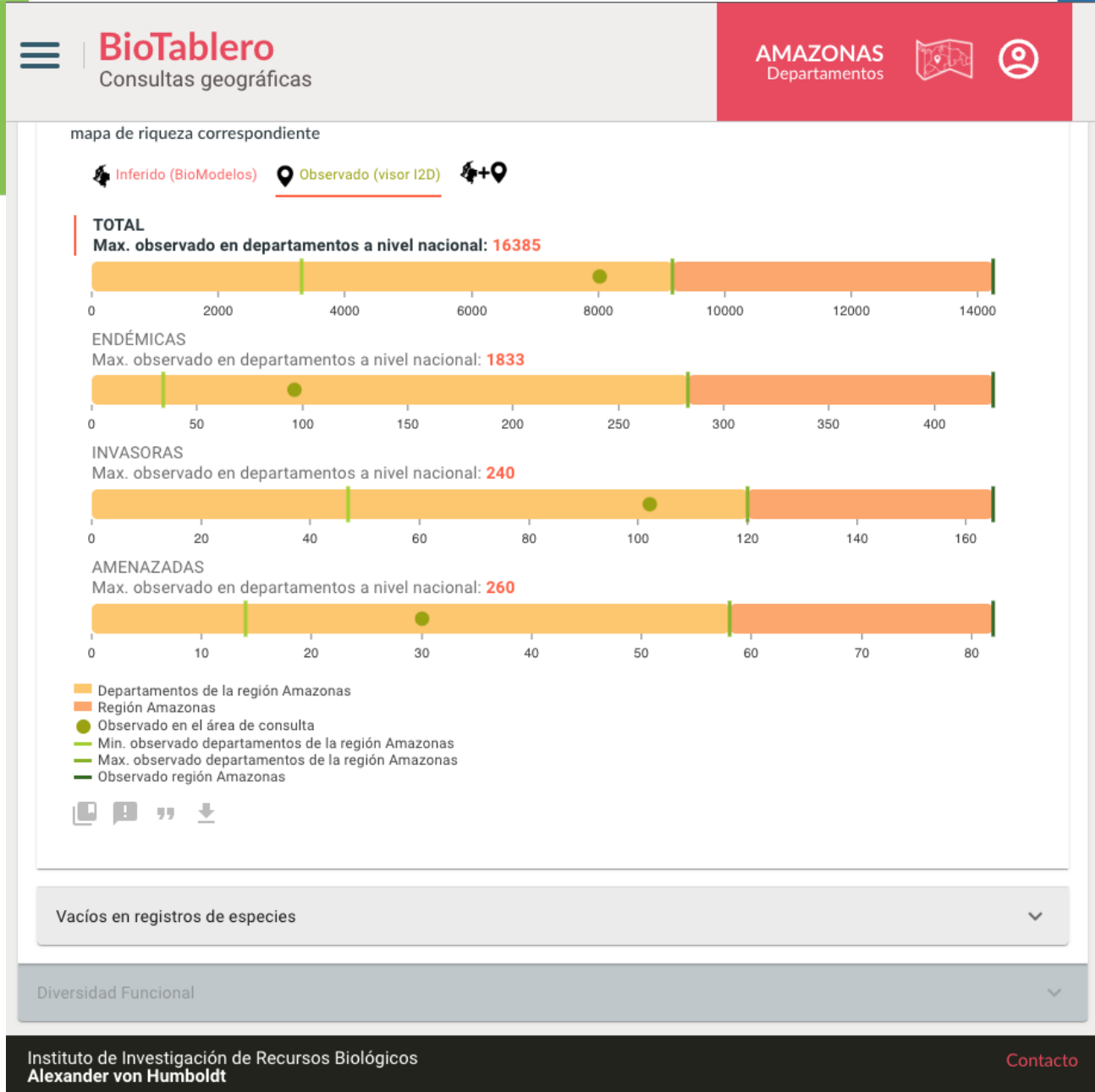
# PRIORITY 1: SCIENCE AND RESEARCH

## BIOTABLERO - *BIOBOARD*

- Support for the application of data in the generation of metrics and indicators to facilitate decision-making on biodiversity, providing environmental authorities and private companies with a synthesis of existing, updated and reliable information in a national and subnational context.
- Distribution models vs Observed.
- Continental biodiversity gaps.



<http://biotablero.humboldt.org.co/>



# PRIORITY 1: SCIENCE AND RESEARCH NATIONAL OPEN SCIENCE POLICY 2022-2031

- Involvement in national policies on open science and data to implement FAIR principles.
- SiB Colombia as one of the most important initiatives for the design of the policy.
- It will aim to increase access, visibility, reproducibility and value of the data.



MINISTERIO DE CIENCIA,  
TECNOLOGÍA E INNOVACIÓN



El conocimiento  
es de todos

Minciencias

RESOLUCIÓN 0777 DE 2022

03 AGO. 2022

*"Por la cual se adopta la Política Nacional de Ciencia Abierta 2022-2031 del Ministerio de Ciencia, Tecnología e Innovación"*

EL MINISTRO DE CIENCIA, TECNOLOGÍA E INNOVACIÓN

En uso de sus atribuciones legales, en especial las establecidas en las Leyes 489 de 1998 y 2162 de 2021 y en atención a los siguientes,

## CONSIDERANDOS

Que mediante la Ley 2162 de 2021 se creó el Ministerio de Ciencia, Tecnología e Innovación como ente rector de la política de ciencia, tecnología e innovación que genere capacidades, promueva el conocimiento científico y tecnológico, contribuya al desarrollo y crecimiento del país y se anticipe a los retos tecnológicos futuros, siempre buscando el bienestar de los colombianos y consolidar una economía más productiva y competitiva y una sociedad más equitativa.

Que de acuerdo con lo previsto en el artículo 2 del Decreto 2226 de 2019, corresponde al Ministerio de Ciencia, Tecnología e Innovación, formular la política pública de ciencia, tecnología e innovación del país, establecer estrategias para el avance del conocimiento científico, el desarrollo sostenible, ambiental, social, cultural y la transferencia y apropiación social de la Ciencia, la Tecnología, la Innovación para la consolidación de una sociedad basada en el conocimiento, así como impulsar el desarrollo científico, tecnológico y la innovación de la Nación, programados en la Constitución Política de 1991 y en el Plan Nacional de Desarrollo, de acuerdo con las orientaciones trazadas por el Gobierno nacional.

Que mediante la Resolución 167 de 2019 se adoptaron los Lineamientos Para Una Política De Ciencia Abierta En Colombia con el objetivo de "promover la creación de infraestructuras digitales que habiliten los componentes de la ciencia abierta para generar nuevos conocimientos, productos y procesos que aporten a la solución de los desafíos

Página

de 85

Q



- National Biodiversity Data Centre released a report on the State of Ireland's Biodiversity in 2010
- Data Centre to update to the State of Knowledge and Key Knowledge Gaps in Ireland's Biodiversity report as the basis for development of a national biodiversity monitoring framework by 2024

# National Biodiversity Data Centre



A Heritage Council Programme

# PRIORITY 1: SCIENCE AND RESEARCH

## SCAR ANTARCTIC BIODIVERSITY PORTAL

Engage with SCAR Community mobilise data using Darwin Core standard.

Work with Researcher developing spatial analysis of Antarctic and Southern Ocean biodiversity using GBIF mediated data

Implementation of SCAR updated data policy

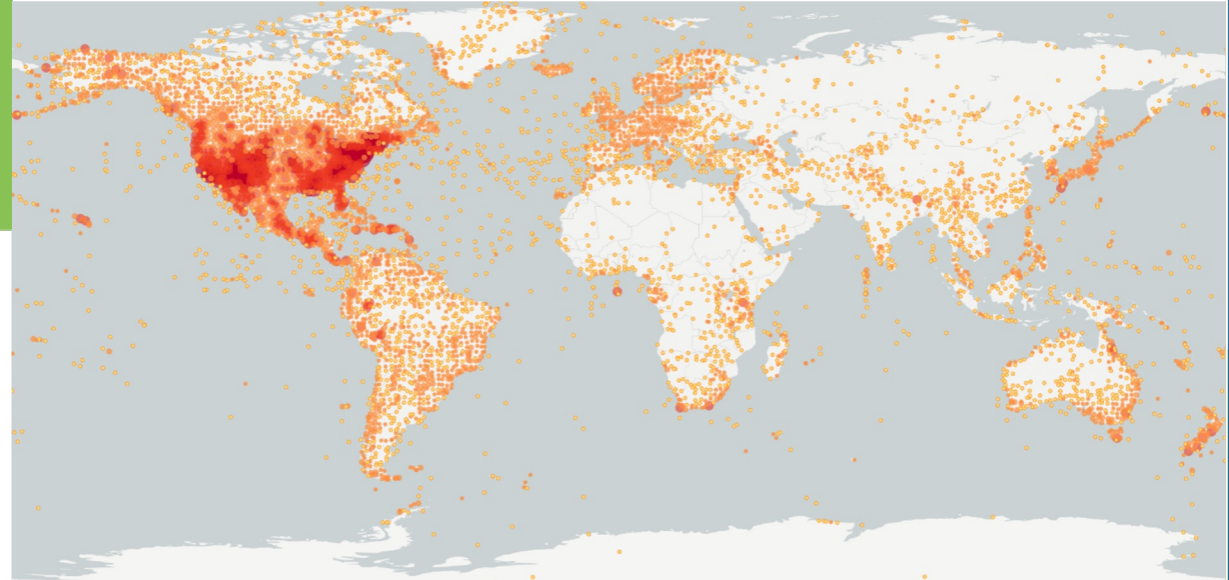




# PRIORITY 1: SCIENCE AND RESEARCH

## SYMBIOTA SUPPORT HUB

- Huge amounts of data mobilized:
  - > **70 million occurrences** from > **1,800 collections**
  - Support of georeferencing/data augmentation
  - **13 million occurrences** sent to GBIF
- Enabling dataset curation
- Data model in constant evolution
  - Different areas of research/requirements
- Promoting the Extended Specimen







# GBIF AND HEALTH



Health



## PRIORITY 1: SCIENCE AND RESEARCH BENIN - BID-AF2020-083-USE

Engagement within the training program of biodiversity informatics at my Faculty for data mobilization and data use to inform decisions on:

- Control of propagation risks of vector-borne diseases
- Reforestation species conservation and sustainable uses
- Wildlife conservation and sustainable use







# GBIF AND FRESHWATER



# PRIORITY 1: SCIENCE AND RESEARCH RIPARIAS

<https://www.riparias.be/>

With the LIFE RIPARIAS project, Belgian authorities pool their resources together to optimize the management of invasive alien species in river areas and ponds across regional borders. This project has received funding from the LIFE Programme of the European Union.



Agentschap voor Natuur en Bos



Vlaamse Milieumaatschappij



Instituut voor Natuur- en Bosonderzoek



Contrat de Rivière Senne



Contrat Rivière Dendre asbl



Contrat de rivière Dyle-Gette asbl



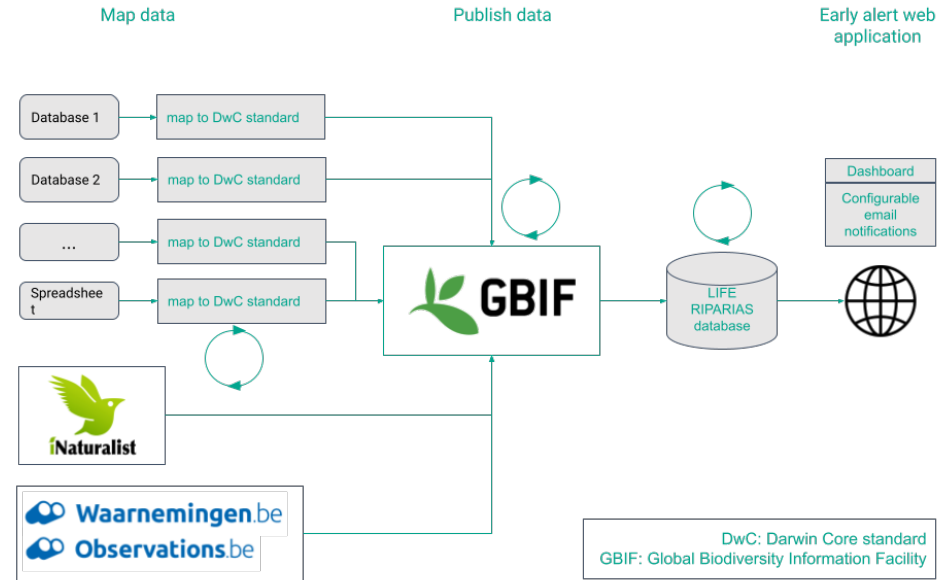
Service Public de Wallonie- Agriculture, Ressources naturelles et Environnement



Liège University - Gembloux Agro-Bio Tech

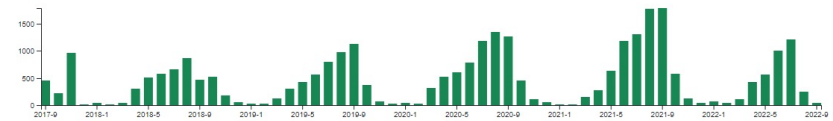


Belgian Science Policy Office - Belgian Biodiversity Platform

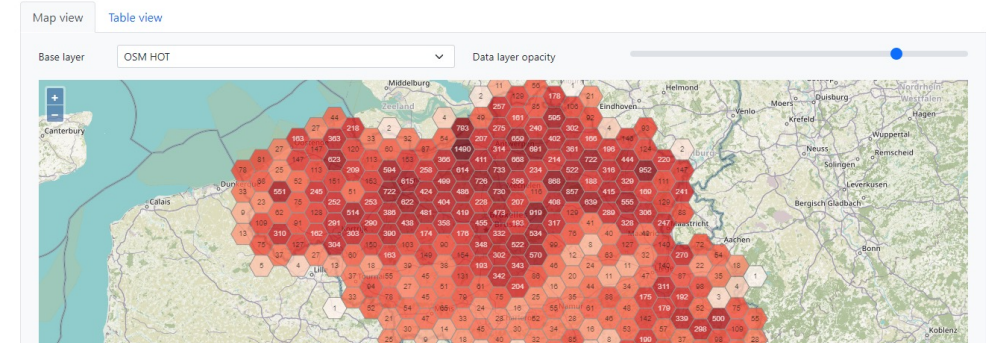


Data filtering:

Enable date range filtering



56.606 matching observations





## DNA-DERIVED DATA & OTHER NEW DATA TYPES



# DNA

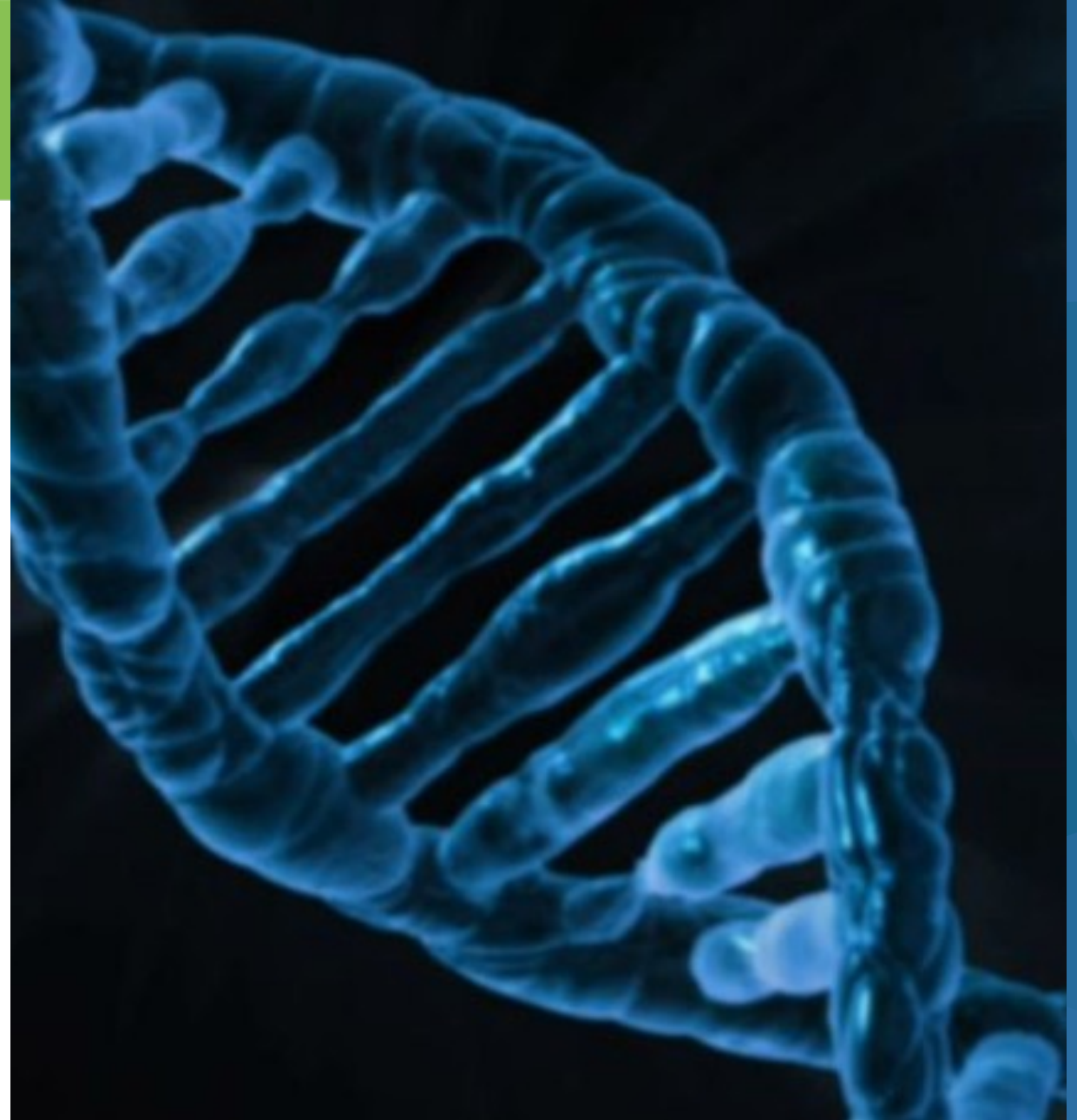


## PRIORITY 1: SCIENCE AND RESEARCH FRANCE BIODIVERSITY BEYOND SPECIES

- Contribution to the first translation of guide on sharing DNA-derived occurrence data with four other francophone nodes
- Plan to mobilise data sets on eDNA



Canadensys



## PRIORITY 1: SCIENCE AND RESEARCH DRIVE COLLABORATION WITH RELEVANT ACTIVITIES

### MOBILISE DATASETS

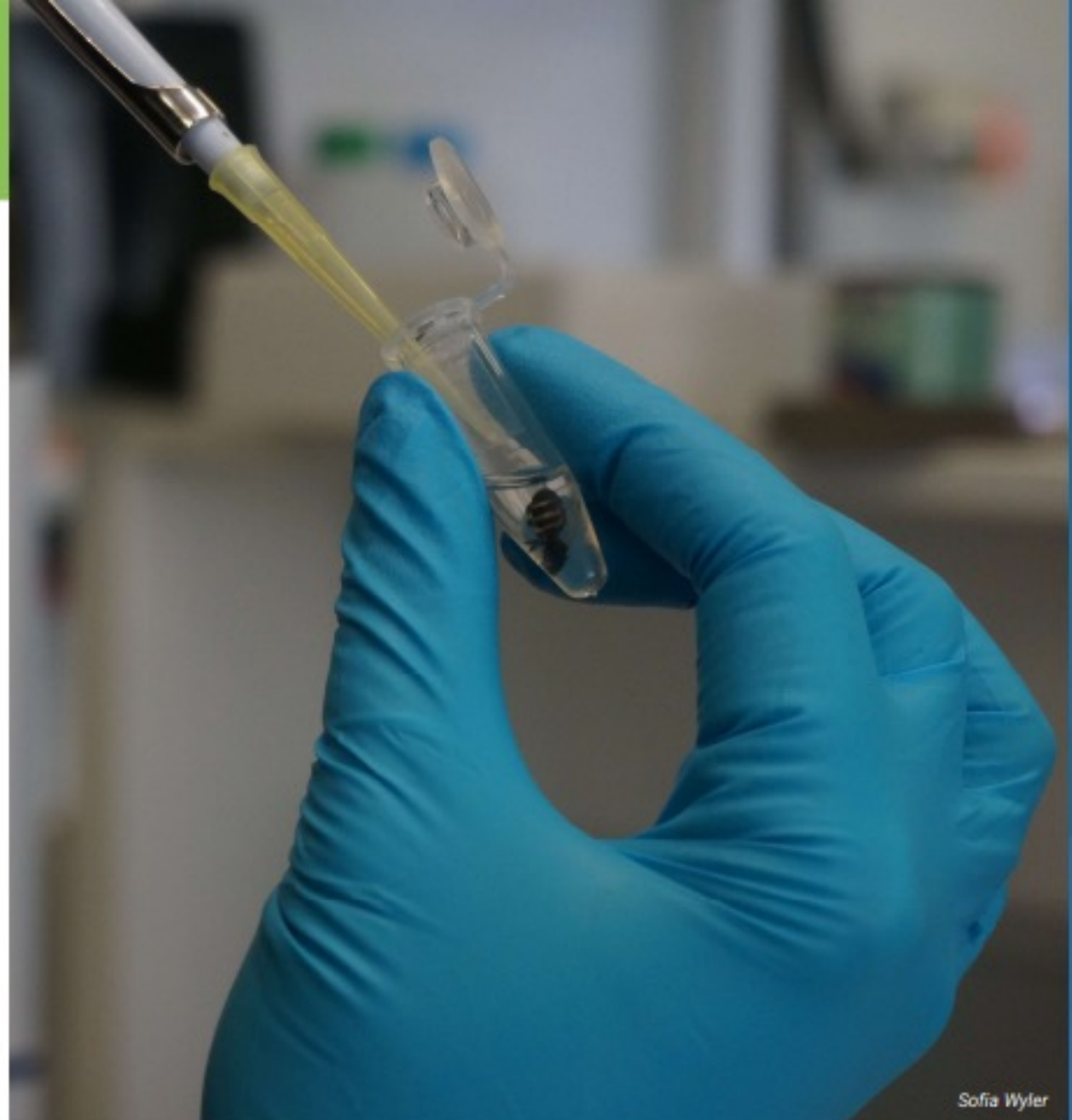
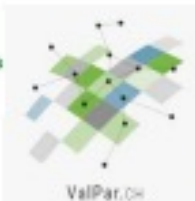
*SUPPORT DATA EXCHANGE AND LEAD THE TRANSMISSION OF DATASETS TO GBIF*

- DNA derived data from monitoring programs (Reuss river; Macun cirque) and reference genetic data (soil mites and acarians; orthoptera; aquatic insects; vascular plants)
- Specimen museum data from partner institutions (MHNG – Mammals; NMBE – Molluscs; EAWAG – Amphipods; WSL – Fungi; ...)

### CONTRIBUTE TO INITIATIVES

*GUIDE ON DATA FLOWS AND PROVIDE GBIF-MEDIATED DATA*

- Digitisation of scientific collections (SwissCollNet)
- Valorization of the ecological infrastructure in the parks of national importance



Sofia Wyler

## PRIORITY 1: SCIENCE AND RESEARCH SWEDISH BIODIVERSITY DATA INFRASTRUCTURE (SBDI)

Contribute to updating current guidance on publishing DNA-derived data – SBDI Molecular group.

Focus on mobilizing molecular data and setting up data pipelines for e.g. Center for Genetic Identification (CGI).

Interested in contributing to documentation and discussions on node level guidance on ILK.

Collaborate with BiCIKL , Species 2000 / Catalogue of Life in developing recommendations for how infrastructures could report usage and impact in a more consistent way.



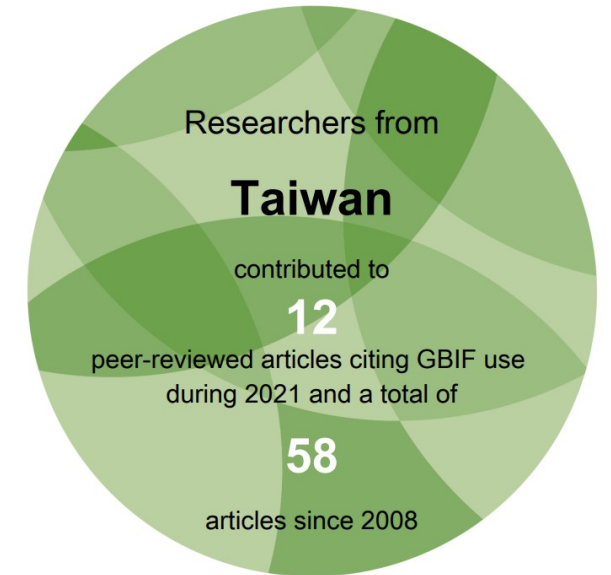
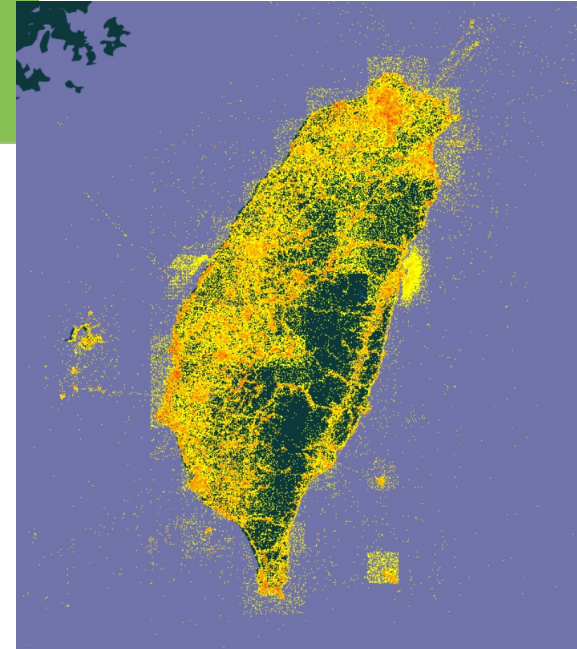
Swedish  
Research  
Council





## PRIORITY 1: SCIENCE AND RESEARCH DIVERSIFYING DATA TYPE AND USE

- Encouraging publishing data of various types including DNA, multimedia and soundscape
- Translating GBIF's DNA data publishing guide to traditional Chinese
- Investigating biodiversity data gaps in Taiwan and determining goals to fill the gaps
- Providing advice and technical and financial support for data paper publication



ARPHA Preprints Author-formatted, not peer-reviewed document posted on 13/07/2022. DOI: <https://doi.org/10.3897/arphapreprints.e90210>

### A dataset of sea turtle occurrences around the Taiwan coast

Daphne Z Hoh<sup>‡,§</sup>, Chia-Ling Fong<sup>‡,¶,¶</sup>, Huai Su<sup>‡</sup>, Pengyu Chen<sup>‡</sup>, Chia-Chen Tsai<sup>‡</sup>, Kelly WH Tseng<sup>#</sup>, Melissa JY Liu<sup>§</sup>

<sup>‡</sup> TurtleSpot Taiwan, Pingtung, Taiwan

<sup>§</sup> Taiwan Biodiversity Information Facility (TaiBIF), Biodiversity Research Centre, Academia Sinica, Taipei, Taiwan

<sup>¶</sup> Biodiversity Research Centre, Academia Sinica, Taipei, Taiwan

<sup>¶¶</sup> Biodiversity Program, Taiwan International Graduate Program, Academia Sinica and National Taiwan Normal University, Taipei, Taiwan

<sup>#</sup> Independent Researcher, Taipei, Taiwan



# SUPPORTING OPEN SCIENCE PRINCIPLES





## PRIORITY 1: SCIENCE AND RESEARCH GBIF CAMEROON

- Continue to raise awareness and build the capacity of researchers in universities and research institutes on the use of GBIF standards and tools;
- Communication on the theme "GBIF Open Data for Biodiversity Conservation and Protection" at the [Open Science in the South conference](#) in Cotonou, Benin from October 25 to 27, 2022.





---

## Diversifying the GBIF Data Model

### Data Standards

- Maintenance of Darwin Core
- Application and Extension of Humboldt Core
- Contributions to Latimer Core

Ongoing support for data publishers with data cleaning, quality and mobilization





# PRIORITY 1: SCIENCE AND RESEARCH

*Improving biodiversity evidence for scientific research and understanding*







## PRIORITY 2: POLICY AND PARTNERSHIPS

*Developing partnerships that benefit policy and society*







## **PRIORITY 2: POLICY AND PARTNERSHIPS**

- Activity 2.1: Support implementation of the post-2020 Global Biodiversity Framework
- Activity 2.2: Support the 2030 Agenda for Sustainable Development
- Activity 2.3: Support the science-policy interface
- Activity 2.4: Support nature-positive outcomes from private-sector decisions





# SUPPORTING IMPLEMENTATION OF THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK





---

Completed analysis of primary biodiversity data and the Post-2020 Global Biodiversity Framework.

White paper: <https://docs.gbif.org/post-2020/en/>

Support for on-going GBIF consultation and the role of GBIF in the Post-2020 Framework.

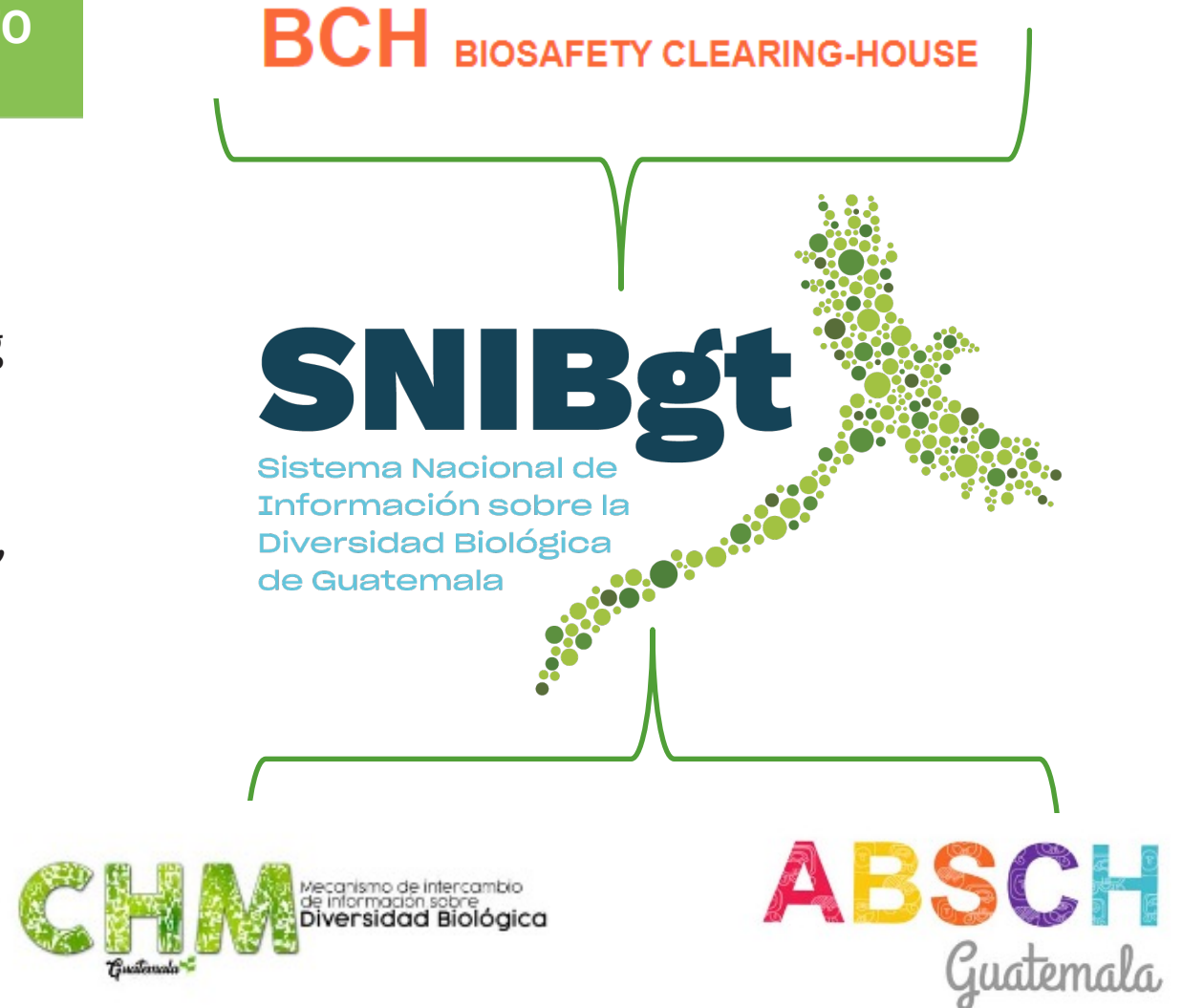
Discourse: <https://discourse.gbif.org/c/alliance-for-biodiversity-knowledge/post2020gbf/27>





## PRIORITY 2: POLICY AND PARTNERSHIPS INTEGRATION OF CBD NATIONAL CLEARING-HOUSE MECHANISMS (CHM, BCH, ABSCH) PLATFORMS INTO THE NODE GBIF GUATEMALA

- From 2022, homologation and integration of all CBD national platforms. Biodiversity (CHM), Biosafety (BCH), and Access and Benefit Sharing (ABSCH), "All in one"
- Increased use of data information
- Combination of different resources, documents, primary information, data, and others.
- Use of information for decision makers in protected area management and biodiversity conservation.
- Updating of official national lists of threaten species.
- Identification of indicators and possible sou for the preparation of national reports.



PRIORITY 2: POLICY AND PARTNERSHIPS  
BENIN - BID-AF2020-083-USE

Support the implementation of the activities of the Head of delegation of GBIF-Benin who is the CBD focal point of Benin





## PRIORITY 2: POLICY AND PARTNERSHIPS GBIF CAMEROON

- Continue negotiations with national policy makers on the inclusion of GBIF activities in the national budget;
- Connect the Cameroon Biodiversity Information System based on GBIF data to the [DaRT](#) (Data Reporting Tool) system which is a system based on the post 2020 Global Biodiversity Framework to facilitate reporting to the Convention on Biological Diversity (CBD).



## PRIORITY 2: POLICY AND PARTNERSHIPS NATIONAL BIODIVERSITY ACTION PLAN

- The 4<sup>th</sup> NBAP for Ireland is currently under development
- National biodiversity agenda for 2023-2027
- Build on the successes of previous NBAPs & address shortfalls
- Expand the governance and oversight of the NBAP and **develop a robust Monitoring and Evaluation Framework to track progress**
- Achieve buy-in across all levels of government and society
- Embed biodiversity at the heart of climate action and achieve greater coherence between policy areas, and strengthen compliance & enforcement of legislation
- Focus on causes and drivers and not the consequences of biodiversity loss
- Determine biodiversity priorities, allocate financial and other resources, internalize the value of nature and recognize the cost of inaction
- Strengthen the science base and enhance data accessibility



An Roinn Tithíochta,  
Rialtais Áitiúil agus Oidhreachta  
Department of Housing,  
Local Government and Heritage

An Chomhairle Oidhreachta  
The Heritage Council



# National Biodiversity Data Centre



A Heritage Council Programme





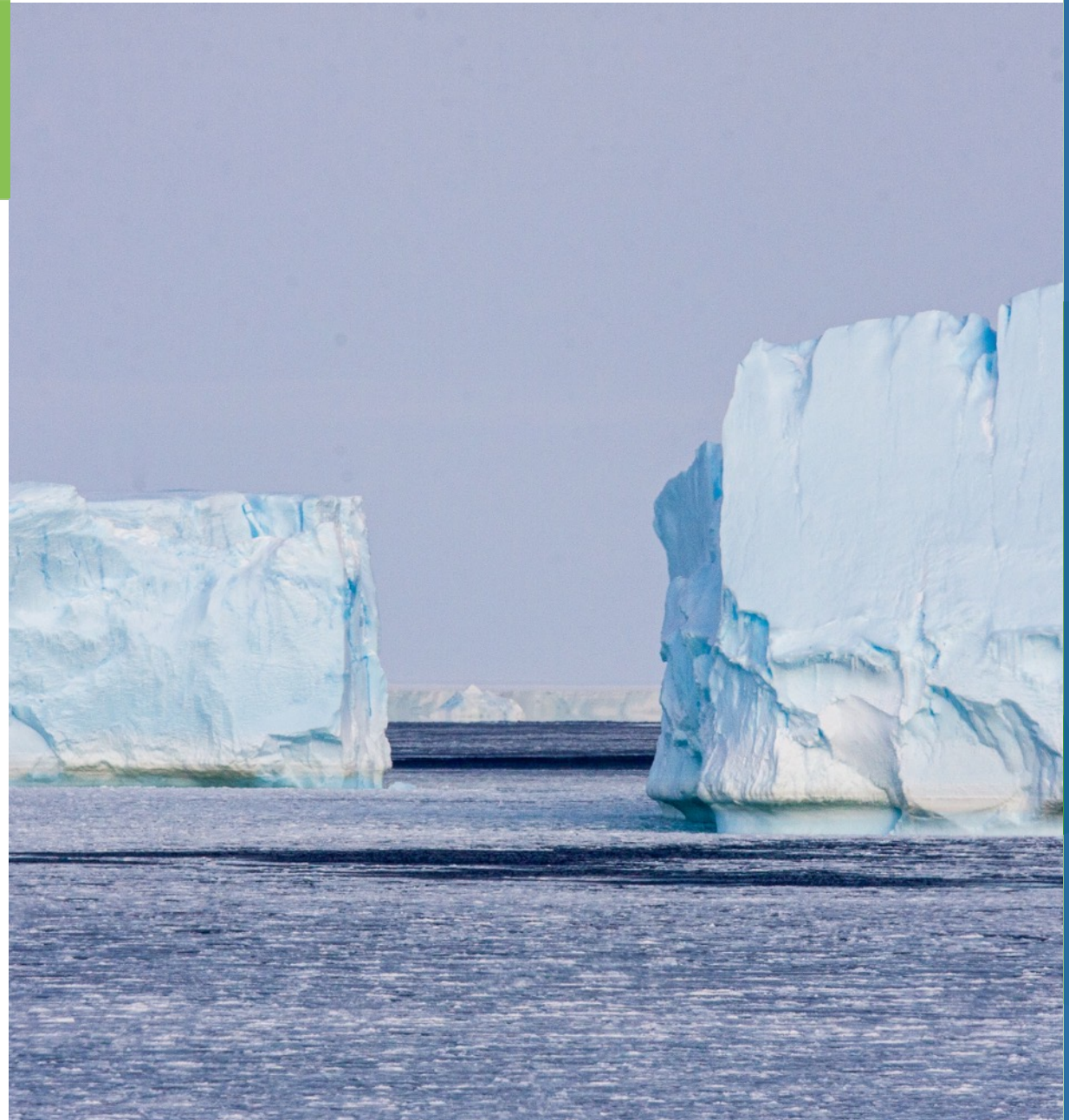
**SUPPORTING THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT**



## PRIORITY 2: POLICY AND PARTNERSHIPS SCAR ANTARCTIC BIODIVERSITY PORTAL

GBIF data and GBIF derived data products can help provide support for policy support within the Antarctic Treaty System

- Committee for Environmental Protection (CEP) (terrestrial)
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) (Marine)





# PRIORITY 2: POLICY AND PARTNERSHIPS COLLABORATIONS

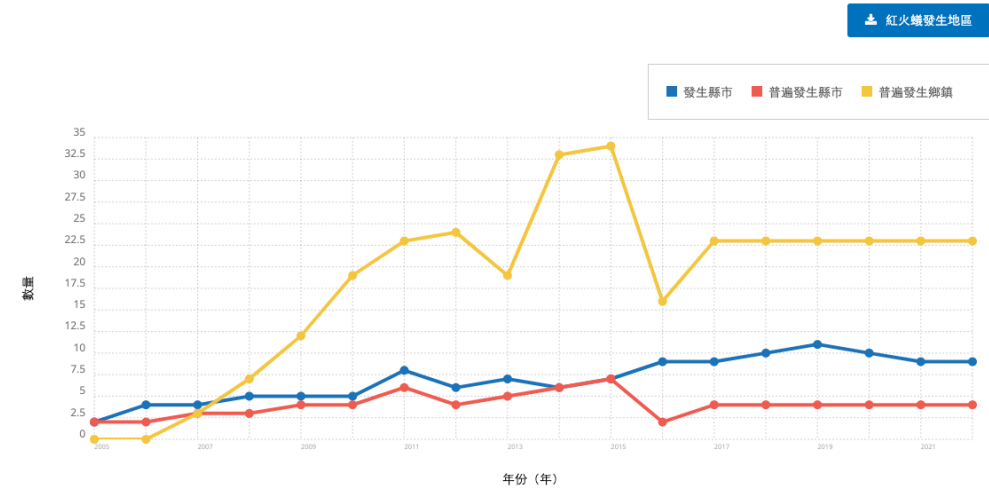
- Data supporting Taiwan Biodiversity Observation Network (TaiBON)
- Involving in data management of Long Term Social-Ecological Research (LTSER) project in Taiwan
- Coordinating biodiversity informatics-related resources among major data stakeholders in Taiwan through Taiwan Biodiversity Information Association (TBIA)



## Fire Ants

By monitoring the distribution, reproduction, and habitat utilization of Fire Ants, we can explore the impact on native species' control and monitoring.

### Visualization





# **SUPPORTING THE SCIENCE-POLICY INTERFACE**





# PRIORITY 2: POLICY AND PARTNERSHIPS

## BELGIUM - MICA

### MICA - Management of Invasive Coypu and muskrAt in Europe

The Life MICA project (2019 – 2023) is a cooperation between German, Dutch and Belgian institutions which has the aim of establishing the efficient management of coypu and muskrat, by developing innovative cross-border methods for their population control. Among the participating institutions are waterbody authorities, invasive species management authorities and research institutions.

362 occurrence(s) matching selection

Map view



Table view

GBIF id	Lat	Lon	Date	Species	Dataset
<a href="#">3907408737</a>	52.449	5.3999	2022-08-23	<i>Ondatra zibethicus</i>	Observation.org, Nat...
<a href="#">3907615796</a>	53.134	8.2135	2022-08-30	<i>Myocastor coypus</i>	Observation.org, Nat...
<a href="#">3904990530</a>	51.499	6.1499	2022-08-07	<i>Myocastor coypus</i>	Observation.org, Nat...
<a href="#">3904778904</a>	51.500	4.8000	2022-08-05	<i>Ondatra zibethicus</i>	Observation.org, Nat...



# PRIORITY 2: POLICY AND PARTNERSHIPS

## BELGIUM – VESPA-WATCH

### Vespa-Watch: Monitor the invasion of the Asian hornet in Flanders

Surveillance requires many eyes on the lookout, including yours! Find out here how you can help detect an Asian hornet in the citizen science project Vespa-Watch. Your data will then be used for control and research.

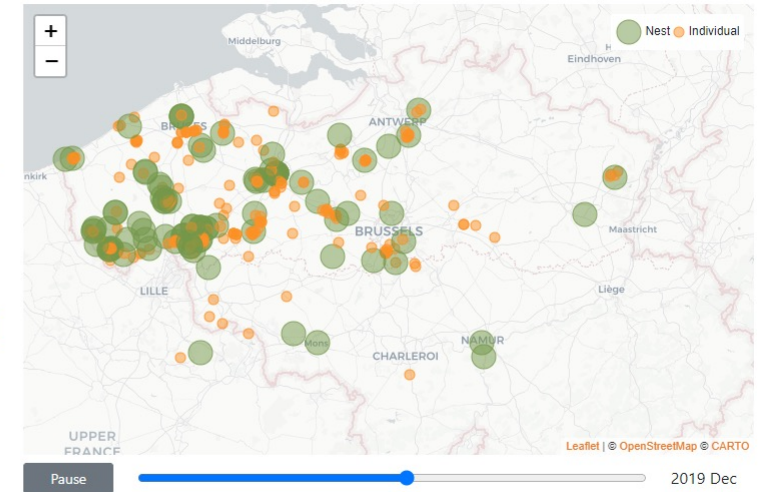
[Read the Vespa-Watch project report](#)

The first Asian hornet appeared in Belgium in 2016. Since then the species has expanded rapidly. This wasp comes from China. It targets bees and other insects and is considered an invasive alien species. In Belgium, it is monitored. The population is managed by exterminating nests.

Surveillance requires many eyes on the lookout, including yours! Find out here how you can help detect an Asian hornet in the citizen science project Vespa-Watch. Your data will then be used for control and research.

For all questions on control and initiating control actions contact [hoornaar\[at\]vbi.vlaanderen](mailto:hoornaar[at]vbi.vlaanderen).

[Activities](#) - [Get involved](#) - [Distribution in 2021](#)




### Latest observations

### What did you see?

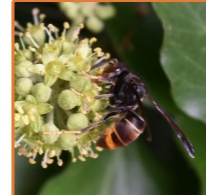
Your observation will be verified by the [iNaturalist](#) community. Want to help and/or submit observations under your own name? [Create an iNaturalist account](#).

For observations in Wallonia, we recommend to directly report via [this form](#).



**Nest of Asian hornet**  
*Vespa velutina*  
light-brown, spherical or pear-shaped, often in tree top

[Report nest](#)



**Asian hornet**  
*Vespa velutina*  
black body, yellow is scarce on abdomen, black legs with yellow tips

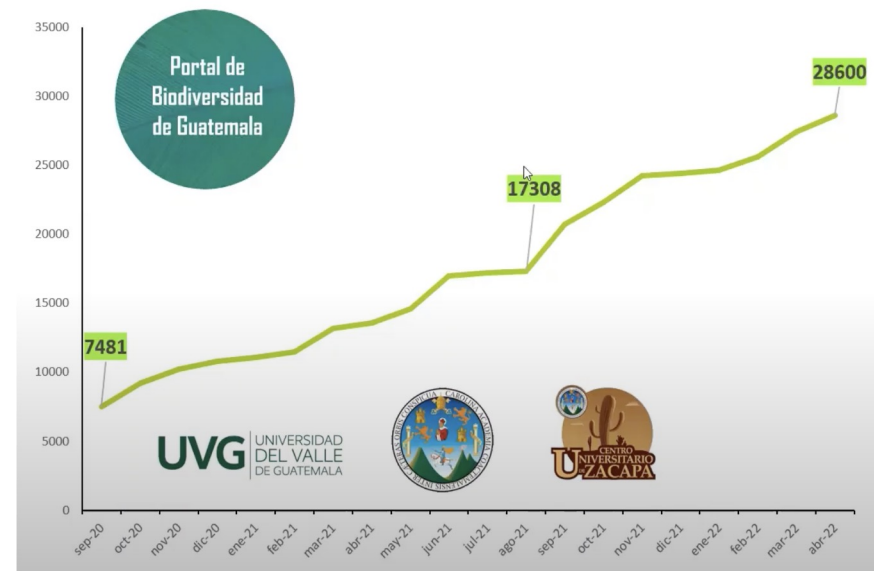
[Report observation](#)



# PRIORITY 2: POLICY AND PARTNERSHIPS

## SYMBIOTA SUPPORT HUB

- Increasing connections
- Mobilizing international collaborations
  - Latin America, Africa and Asia
  - Outreach, education, training, consulting
  - Translations (Spanish and French)
- Supported by iDigBio's rich network, the SSH is increasing reach within North American communities



## PRIORITY 1: SCIENCE AND RESEARCH DRIVE COLLABORATION WITH RELEVANT ACTIVITIES

### MOBILISE DATASETS

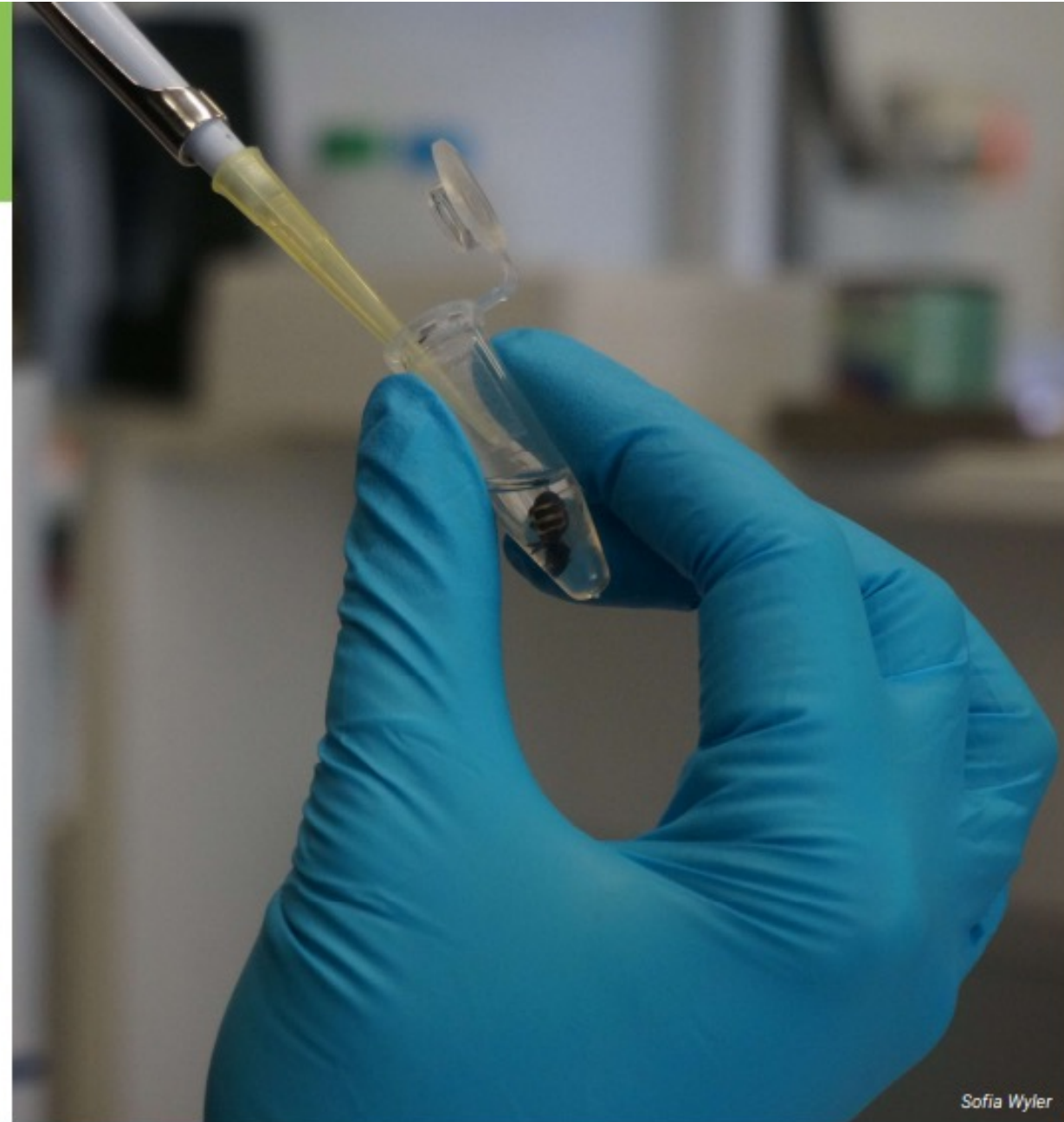
*SUPPORT DATA EXCHANGE AND LEAD THE TRANSMISSION OF DATASETS TO GBIF*

- DNA derived data from monitoring programs (Reuss river; Macun cirque) and reference genetic data (soil mites and acarians; orthoptera; aquatic insects; vascular plants)
- Specimen museum data from partner institutions (MHNG – Mammals; NMBE – Molluscs; EAWAG – Amphipods; WSL – Fungi; ...)

### CONTRIBUTE TO INITIATIVES

*GUIDE ON DATA FLOWS AND PROVIDE GBIF-MEDIATED DATA*

- Digitisation of scientific collections (SwissCollNet)
- Valorization of the ecological infrastructure in the parks of national importance



Sofia Wyler





**SUPPORT NATURE-POSITIVE OUTCOMES FROM PRIVATE-SECTOR DECISIONS**



## PRIORITY 2: POLICY AND PARTNERSHIPS CORPORATE MANAGEMENT FOR NATURE

- Data sharing from the private sector.
- Private companies are increasingly demonstrating commitments to environmental and social responsibility by sharing data they collect during monitoring and impact assessment activities.
- 3 million data for 36 companies





## PRIORITY 2: POLICY AND PARTNERSHIPS PRIVATE SECTOR/DATA4NATURE

GBIF France will continue to support **Data4Nature** initiative from **AFD** (Agence Française de Développement):

Encouraging development actors and their counterparts to share their biodiversity data via GBIF.

Following the **OpenPSD CESP** project (5 nodes): **Promoting publication and use of private-sector data on biodiversity**, we pursue the mobilisation of private sector data

**DEPOBIO**: In accordance with the law of August 8, 2016 of the french Environmental Code, project owners, public or private, must contribute to the inventory of natural heritage by entering or, failing that, by submission of raw biodiversity data.



**DEPOBIO**



Presentation of the Data4Nature initiative





## PRIORITY 2: POLICY AND PARTNERSHIPS

*Developing partnerships that benefit policy and society*







## PRIORITY 3: COMMUNITY AND CAPACITY

*Developing the GBIF network to meet future needs and challenges*







## **PRIORITY 3: COMMUNITY AND CAPACITY**

- Activity 3.1: Make the business case for GBIF
- Activity 3.2: Support and strengthen nodes
- Activity 3.3: Expand and strengthen national participation
- Activity 3.4: Develop capacity and skills





# GBIF AS A NETWORK OF NETWORKS

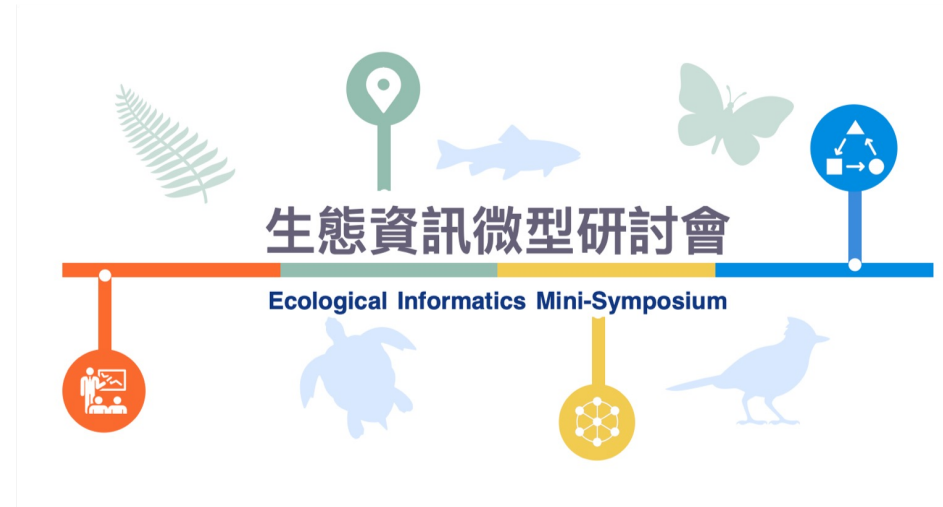
*Nodes coordinating national and thematic networks to expand GBIF's reach*





# PRIORITY 3: COMMUNITY AND CAPACITY TAIBIF COMMUNITY ENGAGEMENT

- Regularly-organized Ecological Informatics Mini-Symposium involving different research institutes and universities
- Annually-organized data mobilization and data use workshop
- Developing virtual data mobilization training materials
- Developing a volunteer training system to cultivate new talents within the community and to support TaiBIF's work
- Popular science articles
- Asia Regional Project Support Team



<p><b>臺灣生物多樣性資訊之發展</b></p> <p>臺灣生物多樣性資訊計畫成立與現況 臺灣生物多樣性資訊計畫的行動與發展 生物多樣性資訊計畫與共同參與——從 TaiBIF 平臺到資訊庫的邁進與系統 國內外生物多樣性資訊計畫發展趨勢對照</p>	<p><b>地質公園與自然科學</b></p> <p>地質公園與自然科學 臺灣地質公園的現況與展望 森林與自然科學的互動關係</p>
<p><b>森林生態學</b></p> <p>森林生態學與自然科學 森林生態學與自然科學 森林生態學與自然科學</p>	<p><b>森林生態學</b></p> <p>森林生態學與自然科學 森林生態學與自然科學 森林生態學與自然科學</p>
<p><b>日本林業</b></p> <p>日本林業的發展與現況 日本林業的發展與現況 日本林業的發展與現況</p>	<p><b>日本林業</b></p> <p>日本林業的發展與現況 日本林業的發展與現況 日本林業的發展與現況</p>





- Continue to engage with data providers (e.g., government bodies, agencies, museums) to strengthen and expand national data publication and use
- Strengthen knowledge base around publishing different data types
- Target withing the **National Biodiversity Action** plan – from 2024 a system is in place to facilitate enhanced contributions to EU and international data hubs and networks

# National Biodiversity Data Centre



A Heritage Council Programme

# PRIORITY 3: COMMUNITY AND CAPACITY SYMBIOTA SUPPORT HUB

- **Training and documentation**
  - [Symbiota Support Group](#) (monthly live event)
  - [Symbiota Docs](#) (multilingual help/documentation website)
  - Software documentation through [GitHub](#)
- **[Portal Advancement Campaigns](#)**
  - Improving data quality
  - Promoting publishing to aggregators (GBIF)
  - Outreach to not-yet-mobilized collections
  - Re-invigorating existing communities
- **[Help desk](#)**
  - Timely, individualized help for portal users and administrators



**1.3 million  
specimens  
added to  
GBIF in  
2022**

**19  
collections  
added to  
GBIF in  
2022**

The screenshot shows the Symbiota Documentation website. At the top, there is a navigation menu with links for HOME, ABOUT, FAQ, CITING THE DOCS, CONTACT, and DOCS. Below the navigation is the main heading "Symbiota Documentation" with a subtitle "Growing archive of help files for one of the most popular Natural History content management systems". A search bar is present with the placeholder text "Try searching for terms here". Below the search bar, there is a section titled "Browse articles by subject" which contains three cards: "User Guide" (Learn to access, view, and download data and checklists.), "Editor Guide" (Learn to edit, manage, import, and export data in Symbiota portals), and "Collection Manager Guide" (Learn to clean data, edit permissions, upload).



# PRIORITY 3: COMMUNITY AND CAPACITY BELGIUM EMPOWERING BIODIVERSITY RESEARCH CONFERENCES AND WORKSHOPS

- **Conference**

A journey into the world of biodiversity data standards and tools and will inform you on the latest developments in the world of Biodiversity Informatics, both internationally and locally. What is the state of the art in initiatives like GBIF, LifeWatch and DiSSCo, etc. and how can we let them work for us?

- **Biodiversity Informatics Market**

The Biodiversity Market, where you can visit market stands, dedicated to Biodiversity Informatics and all that is related.

- **Poster session**
- **Workshops**



<https://www.biodiversity.be/4409>







# **NODES ROLES IN TRAINING**

*Nodes supporting capacity development for a stronger GBIF*





PRIORITY 3: COMMUNITY AND CAPACITY  
BENIN - BID-AF2020-083-USE

Academic training to strengthen and expand  
national and regional data publication and data use



## PRIORITY 3: COMMUNITY AND CAPACITY SCAR ANTARCTIC BIODIVERSITY PORTAL

A recent user survey indicated a strong need for further training.

Including on:

- Data standards (TDWG Darwin Core)
- Data preparation for analysis
- Data preparation for publication

Also we try to have regular support for publication in Pensoft BDJ in combination with training



© Anton Van de Putte





## PRIORITY 3: COMMUNITY AND CAPACITY NATIONAL TRAINING PROGRAM

- SiB Colombia strengthens its community of practice through training activities that enable its publishers and users to make effective use of the services offered.
- These spaces have different formats and may vary annually depending on the scope and conditions: face-to-face workshops, e-learning, webinars, laboratories, among others.







# IMPORTANCE OF COLLABORATION IN THE NODES COMMUNITY

*Working together to tackle capacity needs*





## PRIORITY 3: COMMUNITY AND CAPACITY VERTNET

**New CESP:** <https://bit.ly/CESP2022-09>

Expanding the Network: Bringing marine research and library collections into the data-sharing community

**On-going CESP:** <https://bit.ly/CESP2021-007>

Extending knowledge on biodiversity data quality and publication in the Spanish-speaking community

Active training and mentoring efforts  
in all 6 GBIF regions



## PRIORITY 3: COMMUNITY AND CAPACITY FRANCE - BID/TRAININGS AND PROJECTS

- Trainer and mentor for data mobilization trainings
- Partner in BID projects (2021-2023):
  - National project: **Mobilization and strengthening of biodiversity data supporting sustainable development in Côte d'Ivoire**, lead by Koua Serge Beranger N'GORAN from Centre National de Floristique, GBIF Côte D'Ivoire
  - Regional project: **Progress towards a regional data platform of West and Central African herbaria** lead by Pierre Radji, GBIF Togo





## PRIORITY 3: COMMUNITY AND CAPACITY TRAINING ROUTE FOR THE BUSINESS SECTOR

- CESP 2022-010
- Enhancing data publication, access and use capacities in the private sector.
- Mentoring for LAC nodes:
  - Guatemala – Ecuador – Costa Rica



## PRIORITY 3: COMMUNITY AND CAPACITY DATA QUALITY AND PUBLICATION IN THE SPANISH-SPEAKING COMMUNITY

- CESP 2021-007 in progress.
- To increase the availability of high-quality biodiversity data from the Spanish-speaking community through the GBIF network.
- To improve capacity in the participant countries and in the Latin American región.



# TALLER CALIDAD DE DATOS BIODIVERSIDAD

Buenas prácticas para mejores publicaciones.  
8 al 16 de noviembre de 2021, a través de la plataforma Zoom.



# PRIORITY 3: COMMUNITY AND CAPACITY CONTRIBUTE AND SUPPORT PARTICIPATION

## Five francophone GBIF nodes complete first translation of guide on sharing DNA-derived occurrence data

*Collaborative translation efforts facilitate engagement with French-speaking holders of genomic and metagenomic information*



### INFOSPECIES DATA CENTERS

- Report and promote data use for species conservation
- Share national checklists
- Contribute with validated occurrence data for more than 22'000 taxa

### BIODIVERSITY BEYOND SPECIES

- Translate the document to French
- Publish pilot national datasets
- Organize of a webinar in French

**Switzerland**

**Canada**

**France**

**Luxembourg**

**Belgium**

Publier des données dérivées de l'ADN sur les plateformes de données sur la biodiversité

Anders F. Andersson, Andrew Bisset, Anders G. Fredrik, Nicole Hancey, Marie Grosjean, Michael Hippo, Thomas S. Jappelen, Linné Höglberg, Daniel Lachin, S. Harold Killam, Maria Pagan, Corinne Sauerbreggen, Dorely Solignac





# NODE-LEVEL INFRASTRUCTURE

*Supporting data publishers and users with repositories and portals*





# PRIORITY 3: COMMUNITY AND CAPACITY GBIF NEW ZEALAND

- Benefit of hosted-node
  - focus for NZ community: awareness, access
    - Build capacity and capability
  - Hub for engagement and collaboration
- Next
  - Investigate IPT-hosting
  - Support mobilisation from agencies holding key biodiversity data for the Global Assessment



11,112,495  
Occurrences



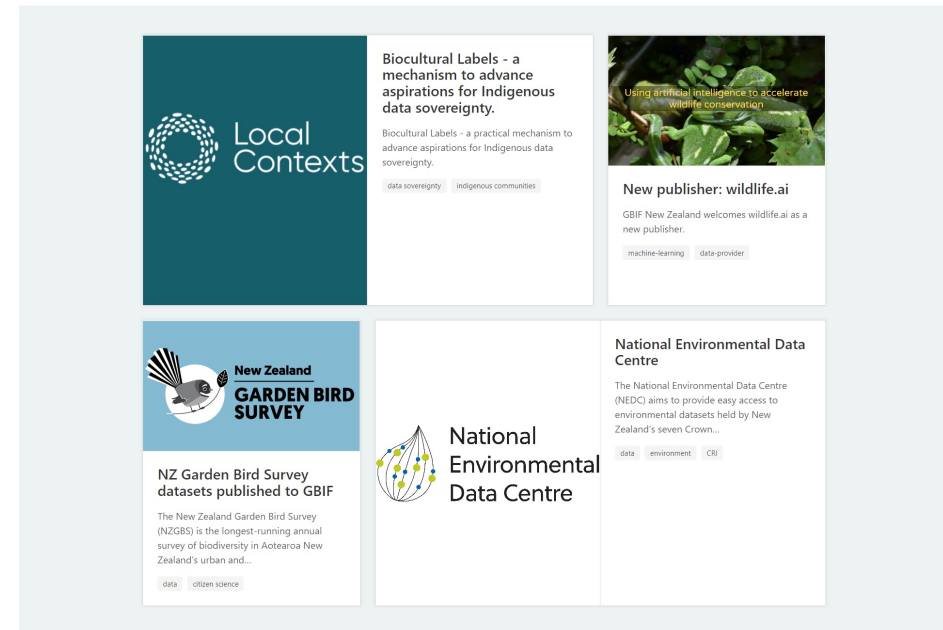
7  
Species lists



8  
Publishers



116  
Datasets



#### PARTNERS

Ministry of Business, Innovation & Employment  
Department of Conservation  
Manaaki Whenua - Landcare Research

## PRIORITY 3: COMMUNITY AND CAPACITY SBDI LA-PORTAL BIODIVERSITYDATA.SE

Continue work on stabilizing a dockerized version of the LA infrastructure for SBDI available at <https://biodiversitydata.se>.

Look for possibilities to participate in Biodiversa+ call. Austrian initiative may be of interest – an interface between Scratchpad and the Living Atlases infrastructure to enhance incorporation of national taxonomic backbones.





## PRIORITY 3: COMMUNITY AND CAPACITY A HOSTED PORTAL FOR SÁPMI

Interested in supporting a hosted portal for the Sápmi region together with community partners.

Sápmi covers part of Sweden, Norway, Finland and Russia.

9 sami languages and meänkieli in the region.

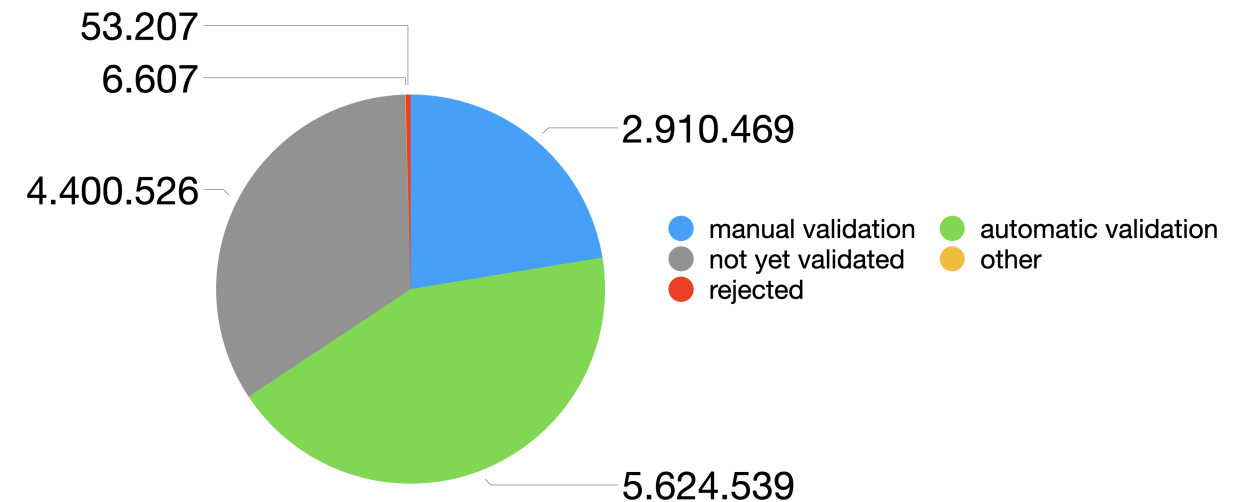
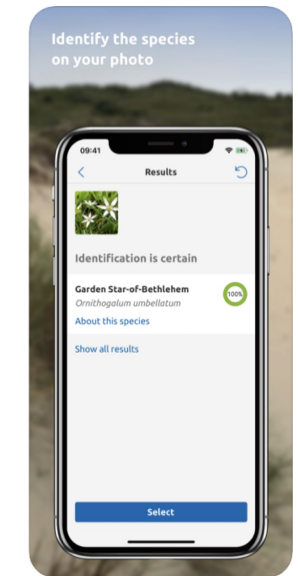
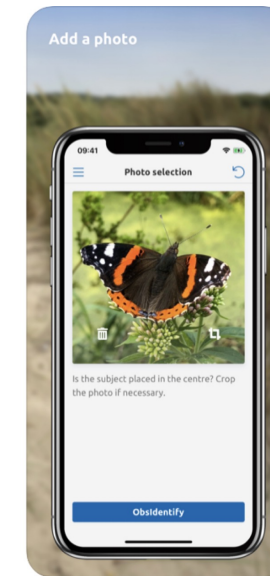
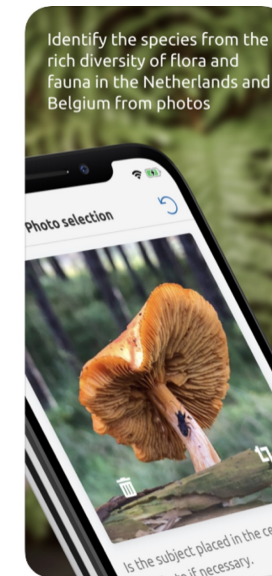


Swedish  
Research  
Council



# PRIORITY 3: COMMUNITY AND CAPACITY OBSERVATION.ORG – GLOBAL PLATFORM

- Non-profit foundation under Dutch law
- International board
- Partners on advisory board & project team
- Secretariat 10 FTE (developers and support)
- Website, mobile apps, API
- Casual observations, transects and point counts
- Validation by expert users and automation (AI)
- 195M observations, 500K+ users, 900 experts
- On GBIF: 67M validated occurrences





## PRIORITY 3: COMMUNITY AND CAPACITY GBIF CAMEROON

- Continue the identification and enrollment in GBIF of new institutions producing and/or holding biodiversity data,





## PRIORITY 3: COMMUNITY AND CAPACITY

*Developing the GBIF network to meet future needs and challenges*







## PRIORITY 4: INFRASTRUCTURE AND DATA PRODUCTS

*Maintain and evolve infrastructure to advance biodiversity-related knowledge*







## **PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS**

- Activity 4.1: Enhance robustness of the core GBIF infrastructure
- Activity 4.2: Enhance support services for data publishers and users
- Activity 4.3: Enhance features and capabilities of the GBIF infrastructure
- Activity 4.4: Drive data standards development



## ACTIVITY 4.1: ENHANCE ROBUSTNESS OF THE CORE GBIF INFRASTRUCTURE

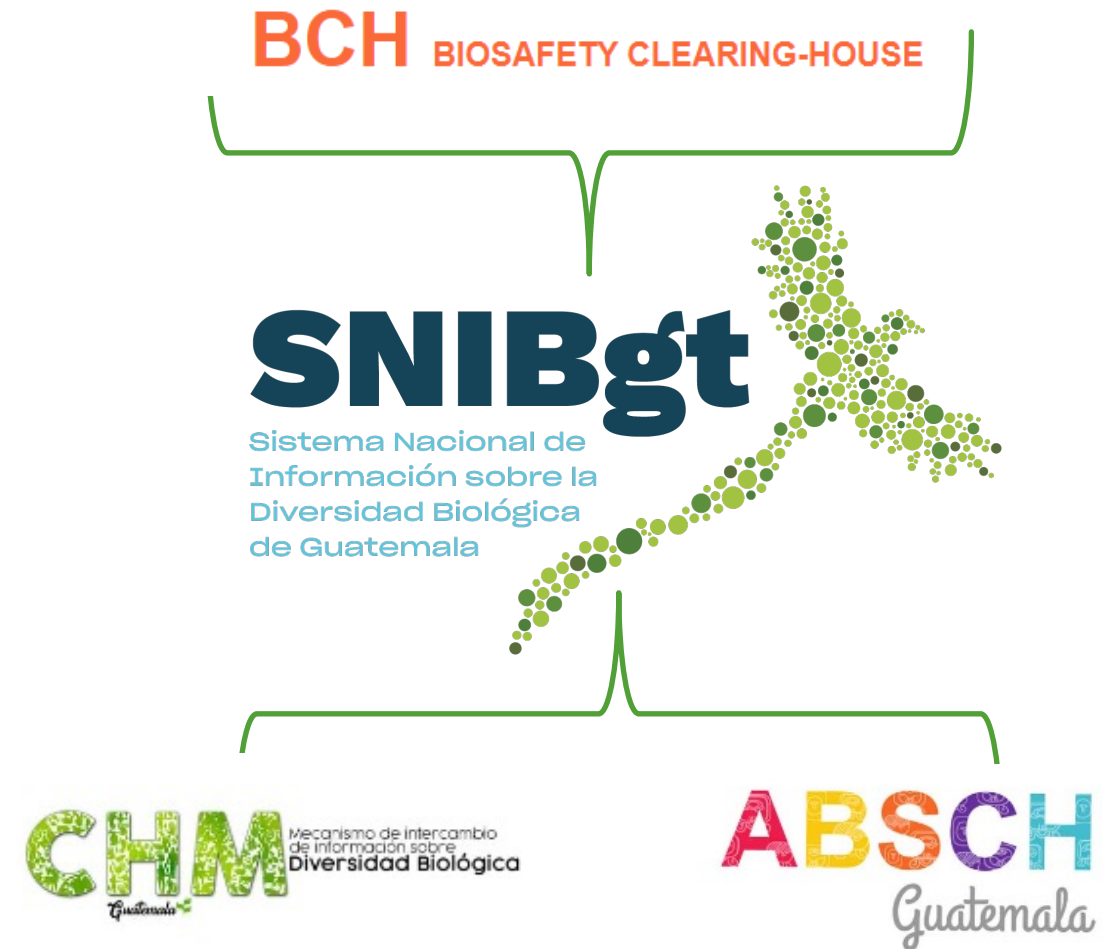
- Improving national and AP infrastructure
  - **France:** OpenObs
  - **Symbiota:** User interface upgrade
  - **Cameroon:** upgrade of the Cameroon Biodiversity Information System
  - **Observation International:** improved Website, mobile app, API
  - **TaiBIF:** portal update with interactive visualizations
  - **Ireland:** National Biodiversity Data Centre



Hemideina crassidens observed in New Zealand by Kyle Bland. Photo via iNaturalist (CC BY-NC 4.0)

## ACTIVITY 4.2: ENHANCE SUPPORT SERVICES FOR DATA PUBLISHERS AND USERS

- Integration of all CBD national platforms
  - **Guatemala**
- GRSciColl
  - **Switzerland** - Synchronize the Swiss Collections Registry
  - **Colombia** – increased from 50 to 130 collections registered
  - **Sweden** – curated across Swedish collections and data
  - **Ireland** – plans to ensure dataset providers are represented





## ACTIVITY 4.3: ENHANCE FEATURES AND CAPABILITIES OF THE GBIF INFRASTRUCTURE

- **VertNet:** BELS - Biodiversity Enhanced Location Services (phase 1) <https://github.com/VertNet/bels>
- **Australia:** Event based search capabilities (shared development) and Extended download capabilities
- **Symbiota:** Material sample & associated occurrence and Taxonomy module
- **France:** Shared IPT development
- **TaiBIF:** Taxonomic information management tool



Image: [Hyacinthoides non-scripta \(L.\) Chouard ex Rothm.](#) by rudyclaey (licensed under [CC BY-NC 4.0](#))



## ACTIVITY 4.4: DRIVE DATA STANDARDS DEVELOPMENT

- **Belgium:** Movebank and Camera Trap Data Package
- **TaiBIF:** camera trap data management system
- **Sweden:** updated R-packages for occurrence downloads





# PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS

## EVENT BASED SEARCH

- Event based search capabilities
- Shared development with ALA & GBIF
- Extended download capabilities
- Hierarchical event structure
  - Survey
  - Sample
  - SiteVisit
  - Find
  - Occurrence
  - MeasurementOfFact



me > Surveys and sampling events

Dataset Event type Sampling protocol Measurement types Year State province Location ID

Scientific name more

Datasets Events Sites **Map** Download

3,289 results with coordinates

533 results Close

**Sample - year: 2008**  
Reef Life Survey: Global reef fish dataset  
Event ID: 6002340-1 - transectBlock

**Find - year: 2009**  
Reef Life Survey: Global reef fish dataset  
Event ID: 6002038-1-9 - biomass,sizeClass

**Find - year: 2009**  
Reef Life Survey: Global reef fish dataset  
Event ID: 6002039-0-9 - biomass,sizeClass

**Find - year: 2009**  
Reef Life Survey: Global reef fish dataset  
Event ID: 6002039-1-8 - biomass,sizeClass

**Find - year: 2009**  
Reef Life Survey: Global reef fish dataset  
Event ID: 6002037-0-27 - biomass,sizeClass

**Find - year: 2009**  
Reef Life Survey: Global reef fish dataset  
Event ID: 6002037-1-17 - biomass,sizeClass

© Mapbox © OpenStreetMap Improve this



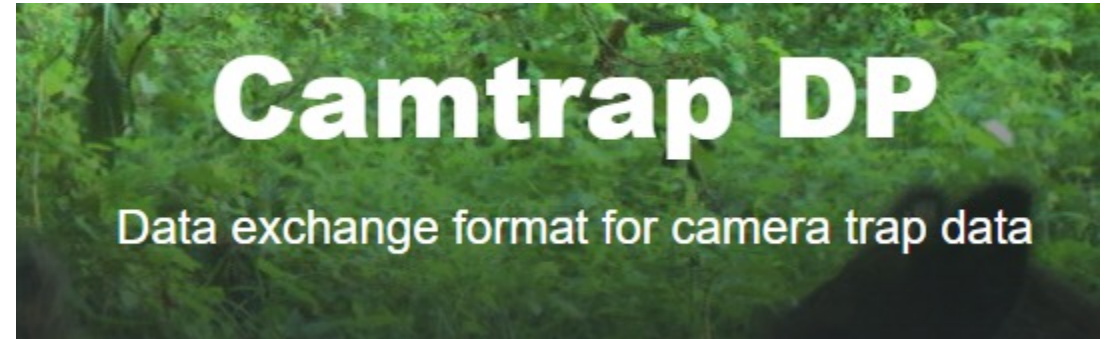
## PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS

### CAMTRAP DP

#### Camptrap DP

**Camera Trap Data Package** (or **Camtrap DP** for short) is a community developed data exchange format for camera trap data.

Camtrap DP is endorsed the camera trap data management systems [Agouti](#), [eMammal](#), [TRAPPER](#), [Wildlife](#) already available as an export format in some of



RESEARCH INSTITUTE  
NATURE AND FOREST





PRIORITY 3: COMMUNITY AND CAPACITY  
BENIN - BID-AF2020-083-USE

Academic training to strengthen and expand  
national and regional data publication and data use



## PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS GBIF CAMEROON

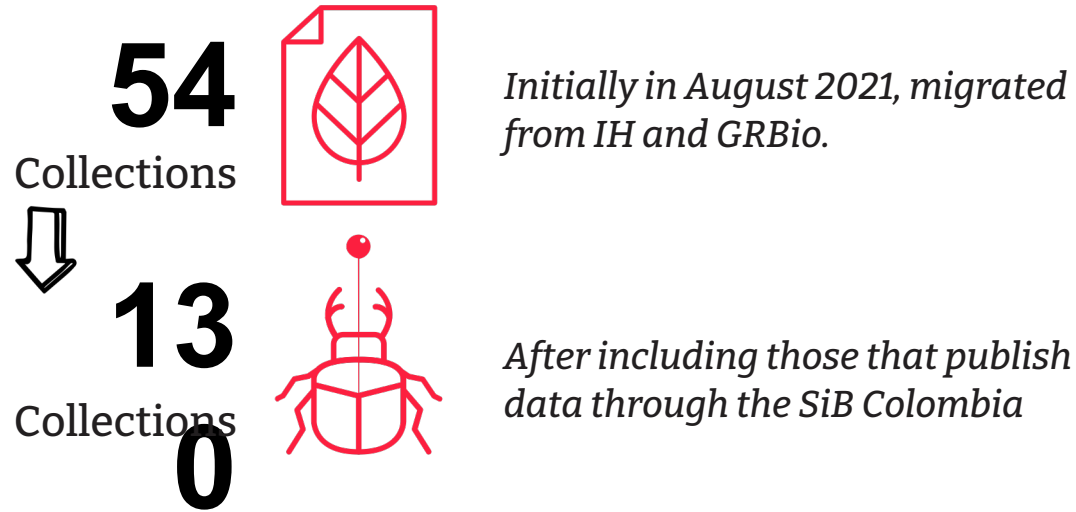
- Complete the upgrade of the Cameroon Biodiversity Information System and connect it to GBIF and other national platforms through the API (Application Programming Interface);
- Integrate the model validated by the CHM scientific committee into the Biodiversity Information System currently being upgraded.



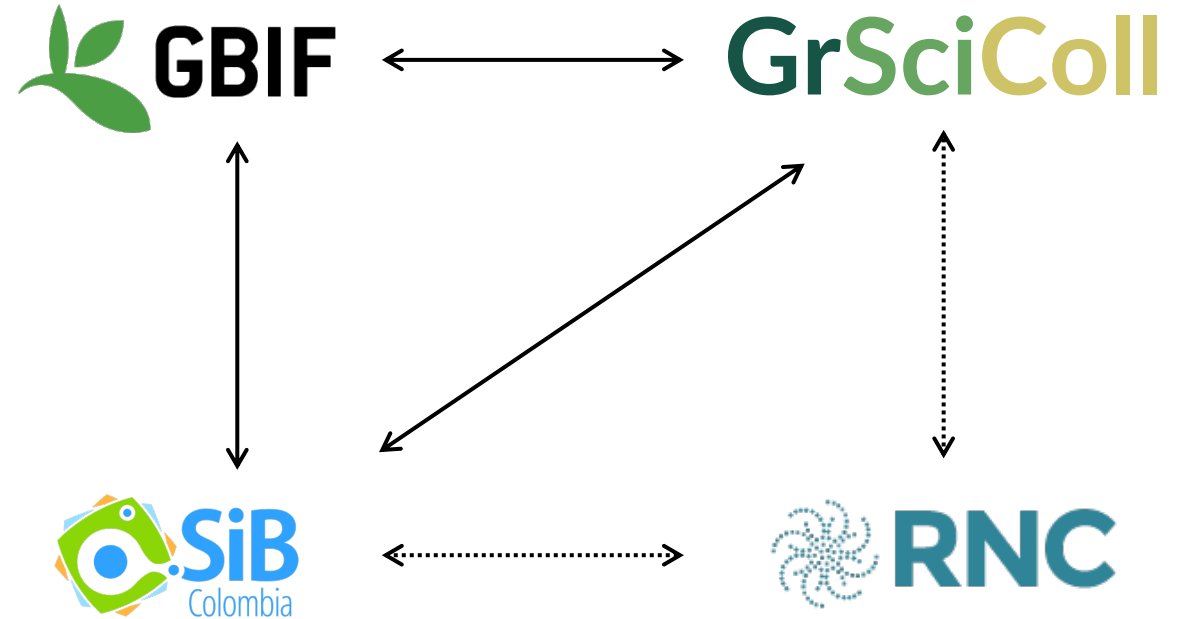


## PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS

### GRSCICOLL - COLOMBIA



- Gradual growth and work with biological collections to ensure that they take ownership of the tool.
- Coordination with the *National Registry of Collections*.



# PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS

## LIVING ATLASES/OPENOBS

### - Development of **OpenObs: the French Biodiversity Data Portal**

OpenObs provides open access to millions of biodiversity species records available in the National Inventory of Natural Heritage : INPN

⇒ visualisation and download of occurrences data.

⇒ first version in October 2020 (openobs.mnhn.fr) and ongoing developments linked with the community

### - Contributions to IPT development

The screenshot displays the OpenObs website interface. At the top, it features the INPN OpenObs logo and the title 'Portail français d'accès aux données d'observation sur les espèces'. Below this is a navigation menu with links for 'À PROPOS', 'RECHERCHE AVANCÉE', 'FAQ', 'API / DÉVELOPPEUR', and 'ACTUALITÉS'. A search bar is located on the right side of the menu. The main content area is titled 'RECHERCHER DES DONNÉES' and includes several search filters: 'Espèces / Autres taxons', 'Régions / départements / communes', 'Groupes d'espèces' (with icons for various groups), and 'Années d'observation' (with a date range from 1000 to 2022). A 'recherche avancée' button is visible in the top right of the search area. Below the search filters, there are four data statistics: '107 122 039 observations', '8 930 jeux de données', '154 431 espèces recensées', and '171 521 taxons recensés'. The page also contains sections for 'ACCÈS AUX DONNÉES SUR LES ESPÈCES' and 'LE PROJET OPENOBS', along with logos for GBIF, Atlas of Living Australia, and Patrimoine Naturel.

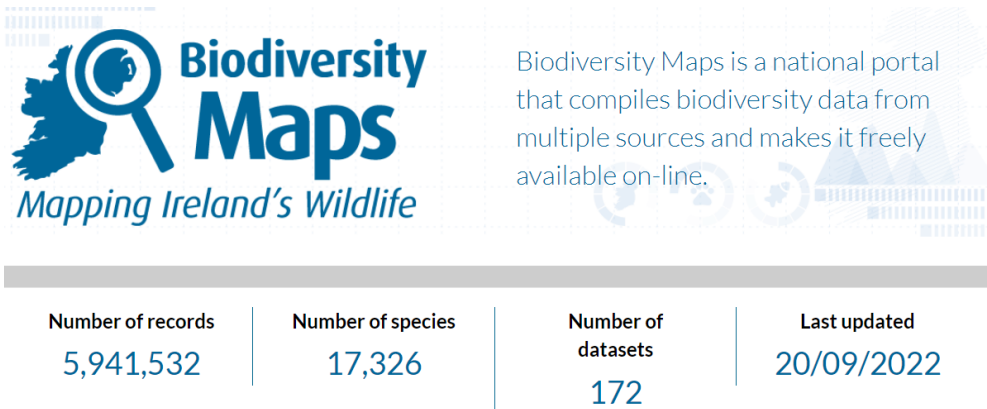




## PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS

### BIODIVERSITY MAPS

- Maintain and ensure continued success of Ireland's biodiversity mapping portal



- Allocate time to Global Registry of Scientific Collections (GRSciColl) to ensure dataset providers are represented

# National Biodiversity Data Centre

A Heritage Council Programme



## PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS IMPROVE NATIONAL INFRASTRUCTURE

Update the current SBDI4R package based on ALA4R to be based on the new galah package.

Curate and clean-up GRSciColl across Swedish collections and data.

Apply for research infrastructure funding for the period 2025-2028.





### GRSCICOLL

- Synchronize the Swiss Collections Registry with GRSciColl (40 institutions, >250 collection entities)

### NATIONAL INFRASTRUCTURE

- Interconnect national data resources provided by partners of the network
- Diversify data types aligning vocabularies with relevant standards
- Facilitate data mobilization and access

### Swiss natural history collections network

2021 Collection Survey



© Philippe Wegmann - Museum Grenchen

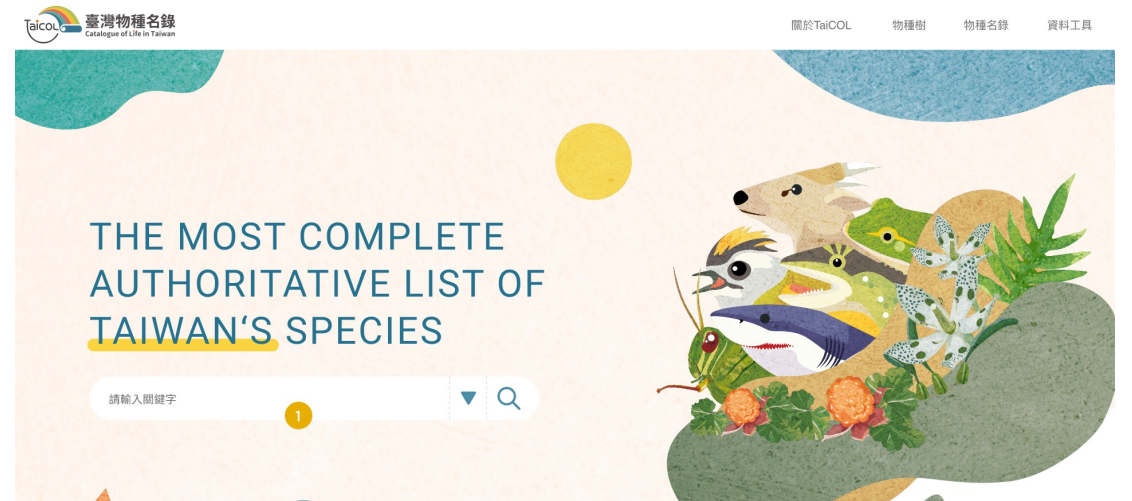
#### Content of this document

1. **Introduction** (2018 collection survey, SwissCollNet collection survey, GRSciColl)
2. **General information** (overview, data publication, next steps)
3. **Guidelines** (provided files, definitions, procedure)
4. **Contributions**

**Appendix 1** - subunit definition

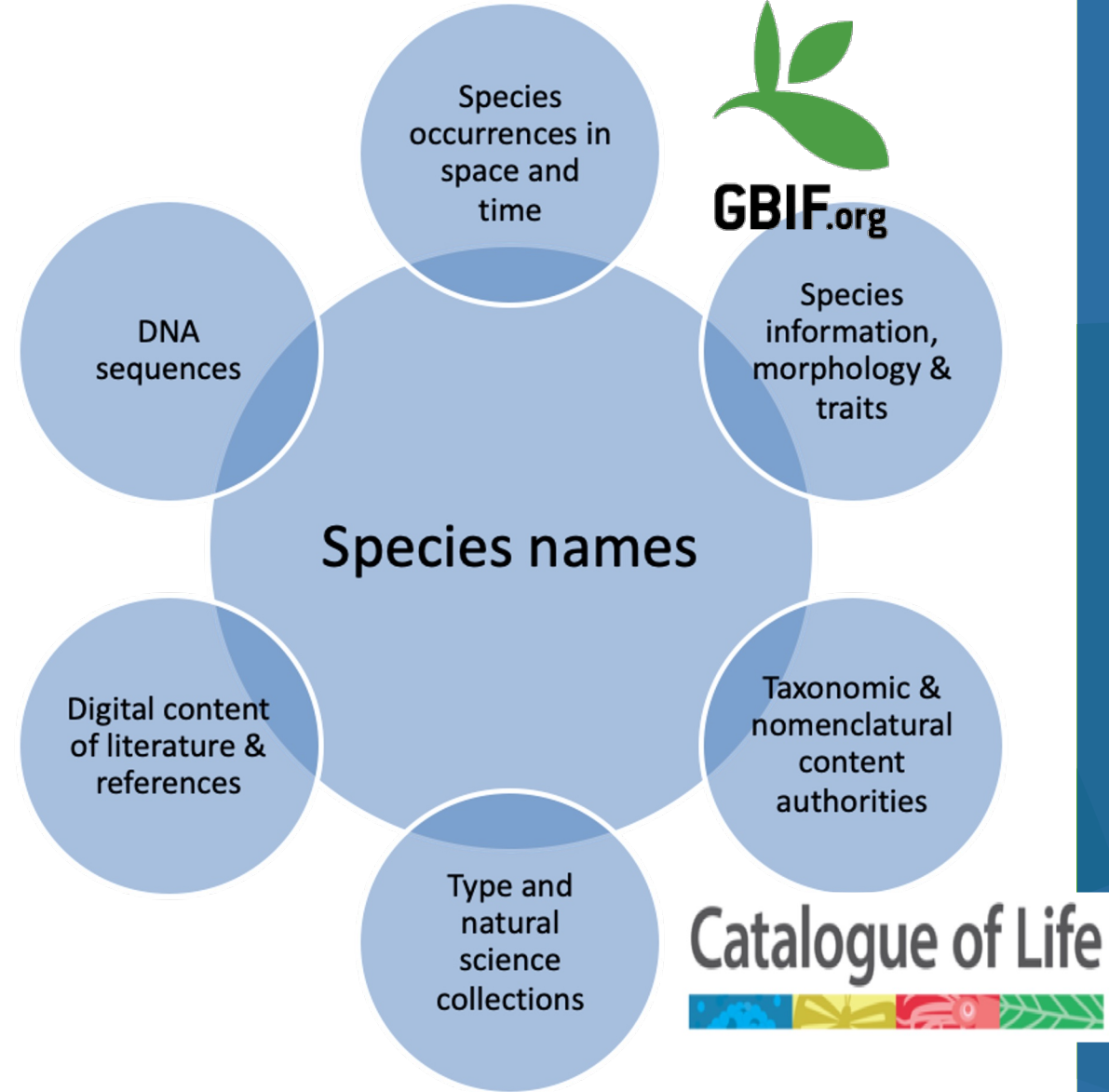
## PRIORITY 4: INFRASTRUCTURE & DATA PRODUCTS DEVELOPMENT & MAINTENANCE

- Improving TaiBIF portal to include interactive visualizations of data
- Developing a taxonomic information management tool to track nomenclatural histories of species and handle multiple taxonomic views
- Developing a desktop program for the camera trap data management system to support the use in field stations without stable Internet connection





- *alliance for biodiversity knowledge*
- Catalogue of Life and GBIF
  - Starting with a concrete incubator
- Open infrastructure for taxonomic checklists
  - +50,000 checklists
  - Compare names across checklists
  - Tools for building checklists including the GBIF taxonomic backbone and COL monthly checklist
  - Open for use by others





## PRIORITY 4: INFRASTRUCTURE AND DATA PRODUCTS

*Maintain and evolve infrastructure to advance biodiversity-related knowledge*

